

Title (en)  
CYCLIC POLYPEPTIDES FOR PCSK9 INHIBITION

Title (de)  
ZYKLISCHE POLYPEPTIDE ZUR HEMMUNG DER PCSK9

Title (fr)  
PEPTIDES CYCLIQUES POUR L'INHIBITION DE LA PCSK9

Publication  
**EP 3810177 A4 20220511 (EN)**

Application  
**EP 19823341 A 20190620**

Priority  
• US 201862688037 P 20180621  
• US 2019038221 W 20190620

Abstract (en)  
[origin: WO2019246387A1] Provided herein are cyclic polypeptide compounds that can, e.g., bind specifically to human proprotein convertase subtilisin/kexin type 9 (PCSK9) and optionally also inhibit interaction between human PCSK9 and human low density lipoprotein receptor (LDLR), and pharmaceutical compositions comprising one or more of these compounds. Also provided are methods of reducing LDL cholesterol level in a subject in need thereof that include administering to the subject one or more of the cyclic polypeptide compounds or a pharmaceutical composition provided herein.

IPC 8 full level  
**C07K 7/02** (2006.01); **A61K 31/405** (2006.01); **A61P 3/06** (2006.01); **A61K 38/00** (2006.01)

CPC (source: EP US)  
**A61K 31/405** (2013.01 - EP); **A61P 3/06** (2017.12 - EP); **C07K 7/02** (2013.01 - EP US); **A61K 38/00** (2013.01 - EP US)

Citation (search report)  
• [A] WO 2016119067 A1 20160804 - PRONASCI INC [CA]  
• [A] WO 2017220701 A1 20171228 - HOFFMANN LA ROCHE [CH], et al  
• [A] US 2009275504 A1 20091105 - MAYNE JANICE [CA], et al  
• [A] ARIAS MAURICIO ET AL: "Recombinant expression, antimicrobial activity and mechanism of action of tritrypticin analogs containing fluoro-tryptophan residues", BIOCHIMICA ET BIOPHYSICA ACTA, ELSEVIER, AMSTERDAM, NL, vol. 1858, no. 5, 23 December 2015 (2015-12-23), pages 1012 - 1023, XP029473763, ISSN: 0005-2736, DOI: 10.1016/J.BBAMEM.2015.12.023  
• [T] ALLEYNE CANDICE ET AL: "Series of Novel and Highly Potent Cyclic Peptide PCSK9 Inhibitors Derived from an mRNA Display Screen and Optimized via Structure-Based Design", JOURNAL OF MEDICINAL CHEMISTRY, vol. 63, no. 22, 10 November 2020 (2020-11-10), US, pages 13796 - 13824, XP055881861, ISSN: 0022-2623, DOI: 10.1021/acs.jmedchem.0c01084  
• See references of WO 2019246387A1

Designated contracting state (EPC)  
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US 11814445 B2 20231114; US 2022089640 A1 20220324

DOCDB simple family (application)  
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